



## Fisheries, food security, climate change, and biodiversity: Characteristics of the sector and perspectives on emerging issues

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### Abstract:

This paper reviews global projections to 2050 for human population growth and food production, both assuming constant climate and taking account of climate-related changes in growing conditions. It also reviews statistics on nutritional protein requirements, as well as how those requirements are met by fish on a regional basis. To meet projected food requirements, the production of fish has to increase by similar to 50% from current levels. The paper also summarizes the main pressures on marine biodiversity that are expected to result from the impacts of changing climate on marine ecosystems, as well as the management measures and policy actions promoted to address those pressures. It highlights that most of the actions being proposed to address pressures on marine biodiversity are totally incompatible with the actions considered necessary to meet future food security needs, particularly in less developed parts of the world. The paper does not propose a solution to these conflicting pulls on policies for conservation and sustainable use. Rather, it emphasizes that there is a need for the two communities of experts and policy-makers to collaborate in finding a single compatible suite of policies and management measures, to allow coherent action on these crucial and difficult problems.

**Source:** <http://dx.doi.org/10.1093/icesjms/fsr041>

### Resource Description

#### Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES)

**Special Report on Emissions Scenarios (SRES) Scenario:** SRES A2

#### Communication:

resource focus on research or methods on how to communicate or frame issues on climate change;  
 surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience:

audience to whom the resource is directed

Policymaker, Researcher

# Climate Change and Human Health Literature Portal

## **Exposure :**

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Security

**Food/Water Security:** Fisheries

## **Geographic Feature:**

resource focuses on specific type of geography

None or Unspecified

## **Geographic Location:**

resource focuses on specific location

Global or Unspecified

## **Health Co-Benefit/Co–Harm (Adaption/Mitigation):**

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Malnutrition/Undernutrition

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Resource Type:**

format or standard characteristic of resource

Review

## **Resilience:**

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

## **Timescale:**

time period studied

Long-Term (>50 years)